1st & Final Bill SUR No. 57/16-17 Original/Duplicate/Triplicate
DATED 8-7-16

CONTRACT CERTIFICATE
(For Other Works)

EE/ELE/Y/BR No. 57/16-17

No.

Date: Dt. 8-7-16.

Division: **Electrical (Yelahanka)** Sub- Division:

Bill Received No.....Dated.....Cash Book Voucher No.....dated.....

Scheduled Docket Name of Work (as per sanctioned estimate): **Providing Remaining Sodium lamps & Electrical fittings at Ward No 9 in Vidyaranyapura Sub division.**

Contractor and Full Address: **M/s Ganga Enterprises,**

Work Order No: : **EE/BTP/BBMP/E-PMT/186/15-16 Dated : 29-01-2016**

Reference to Agreement Date ..... **Job No:- 009-16-000012**

P3089 Spl Devalopment Works in 7CMC & 1 TMC Area in BBMP

Certified that the measurements were taken by me on 8/7/16 and recorded of pages 310 359 to 374 of Measurement Book No 310H and that the work is satisfactorily executed.

For GANGA ENTERPRISES

Contractor

T.N. Baddy JRPH

Officer in charge of work

Proprietor

Certified that the measurements were taken by me on 8/7/16 and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in columns 3 of Account II have been actually brought to Site of the work and the contractor has not previously received any advance on this security. These materials are of an imperishable nature and are all required for immediate use on the work in the connection with item for finished work have been agreed upon. And normal agreement signed and executed by the contractor is recorded in the office.

Sub-division Officer

II Memorandum of Payment

46) Total value of work done or supplies as per account within	
47) Deduct amount to be held in reserve being Bill - ....percent Rs.....	12,14,405=00
48) " Balance IT 1%	12,144=00
49) Deduct payment : VAT 4%	4,8,576=00
s) Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D.No..... SBC 5%	60,720=00
Amount adjusted towards cash advance recovery of LWC 1%	12,144=00
t) Payments cost store or other material supplied. CBF 0,1%	12,14=00
Now made recovery amount creditable to this/ other work Fine	4,000=00
Amount paid on this bill cheque/cash deductions	1.38,798=00
50) Balance being unpaid value of work done held in reserve Cheque.	10.75,607=00
6) Deduct cash advance made on the Office Cash Book Voucher No..... dated.....less adjustments	
7) Net amount due to or from contractor	
Unadjusted items	
8) Advance to contractor for materials brought to site (as detailed) within Value of Government materials supplied	

For GANGA ENTERPRISES

Contractors Signature

Received Rs.....(in words)

.....

by cash and adjustment of payment as per memorandum.

Witnesses :

1.

2.

Dated .....Signature of contractor

Paid by me by cheque No.....Dated .....

Cash Rs.....Dated.....

For GANGA ENTERPRISES

Proprietor

Proprietor

Initials of Officer making payment

(For use in the office)

ಲೆಕ್ಕಶೀರ್ಷಿಕೆ P3089 Spl Devalop 7CMC & 1 TMC

ರೂ: Stamp 12,14,405=00 ಅಡಿಟ್ ಮಾಡಿ ಸ್ವೀಕರಿಸಿದೆ

ರೂ: 10,75,607=00 ಚೆಕ್ ನೀಡಬಹುದಾಗಿದೆ

ರೂ: 1,38,798=00 ಕಡಿತಮಾಡಿಕೆ ಮಾಡಿದೆ

ಲೆಕ್ಕ ಅಧೀಕ್ಷಕರು

Executive Engineer (Ele)

ಕಾ.ಪಾ.ಇ.(ವಿ) ಯಲಹಂಕ ವಲಯ

Sl no	Description of item
	Name of Work : .....
1	Supplying High pressure sodium vapour street light luminaire suitable for use with high pressure sodium vapour lamp with integrated control gear and grey colr powder coated. The fitting shall be non corrosive pressure die cast aluminium housing with high purity anodized aluminium housing with EPDM Gaskets suitable for Outer Dia of pole 40 mm -60 mm. Cable entry through a cable gland with toggle clips. IP65 protection for both optical & electrical compartment. Bottom cover may be with poly carbonate/tempered/ toughened glass.Luminaire efficiency should be > 60 % and ambient temperature >35 deg C. High Intensity Discharge electro magnetic ballast with copper winding of Orthocyclic winding coil. Class H insulated dual coated copper wire. Complaince to IEC 61347-2-9 Safety & IEC 60923-Performance. Winding Temperature rise " T=70 deg C. Luminaire shall be suitable to operate on 230/250 V 50 Hz AC supply finish including wiring , Ignitor, condenser, SS Toggles for opening front hingeable glass 250 Wattsa) Group 'A'
2	Supplying and Fixing 50mm class A GI pipe up to 4.5 mtrs. long with a reducing collar of 50x40mm to which, an extension of 250 mm pipe is fixed for 125 or 250/400 watts MV / sodium vapour street light fitting, using suitable clamps, bolts ,nuts, and wiring using suitable capacity wires.
3	Supplying & fixing of 32 mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 or rail or RCC pole/wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires complete. Using 32mm dia G.I pipe
4	Supplying of 1.1 KV grade Aerial Bunched Cable Stranded and Compacted Aluminium Phase Conductor and Stranded Messenger Conductor with all aluminium Alloy, Phase Conductor is insulated with XLPE Compound, Insulated Messanger with SpecifiedIS-14255:1995 & confirming to GTP of Group A 2X16+1X25Sqmm
5	Striniging of 1.1 KV grade aerial bunched 3 core cable of XLPE insulation standard aluminium conductor standard around a weather resistant black XLPE insulated AAA messanger wire (3X 25 Sq mm + 1X 16 sqmm + 1X 25Sqmm + 1X 35 sqmm)
6	Dead End Clamp/ Anchor clamps assembly 25 to 95 sqmm bear messanger (Standard Stock materials 2010-11)
7	suspension clamp assemblly 25 to 95 sqmm bear messanger (Standard Stock materials 2010-11)
8	Errection of suspension clamp 25 to 95 sqmm bear messanger (Labour charges 2010-11)
9	Errection of Anchor clamp 25 to 95 sqmm bear messanger (Labour charges 2010-11)
10	Supply and fixing of ..... cross arm including all Hardwares compete as per the standard technical specification.b) 2 Pin 45x45x5mm-510mm
11	Fixing halogen/metal halide/SVL/IL /LED floodlight fitting over existing pole/wall ceiling including clamps ,bolts ,nuts and wiring using suitable capacity wires complete . Labour charges for releasing of material shall be at 90 % of the cost of erection . Rate of fixing is Rs.176.00 =0.9 X 306.00=158.4 Therefore 176.00+158.40=334.40

For GANGA ENTERPRISES

Proprietor

Unit	Previous Measurement		Present Measurement			Total Upto Date		Remarks
	Qty.	Cost	Qty.	Rate	Amount	Qty	Cost	
Nos			130	5928.00	770640.00	130	770640.00	
Nos			50	1150.00	57500.00	50	57500.00	
Nos			80	405.00	32400.00	80	32400.00	
Mtrs			1236	72.00	88992.00	1236	88992.00	
Mtrs			1236	8.00	9888.00	1236	9888.00	
Nos			5	140.00	700.00	5	700.00	
Nos			48	196.00	9408.00	48	9408.00	
Nos			48	74.00	3552.00	48	3552.00	
Nos			5	59.00	295.00	5	295.00	
Nos			50	285.00	14250.00	50	14250.00	
Nos			25	52.00	1300.00	25	1300.00	

12	Supplying and fixing of Solar Lux level Street light control switch three phase including suitable capacity contactor 12 KW Specification of Timer:The ON & OFF timing is based on astronomical twilight data so it helps in the precise switching ON & OFF of the lighting load.The ON & OFF pre-programmed time intervals can be modified by the user Micro processor based electronic timer consisting of LCD, builtin Real Time Clock and keypad with options to operate Electronic contactor in programmable mode or astronomical mode or depending on light intensity(lux level using IR sensor) Specification of Electronic Contactor: 125Amps Electronic contactor with suitable heat sink to withstand load The Electronic Contactor unit is controlled by the MCU and the same is mounted on an aluminium heat sink to dissipate the heat and thereby keep the junction temperature under the safe operating limit. The Electronic Contactor is connected to the lighting load and will provide better switching reliability and trouble free operation with longer life since there is no moving parts. The Electronic Contactor's are resistant to vibration, shock and humidity. It will not generate RFI,EMI and there is no arcing of contacts. Features:Reliable and Safe Switching. Input :170V – 280V AC Displays ON & OFF timing. Frequency : 50Hz ± 5% EC Turn On Time : 40 msec EC Turn OFF Time : 80 msec EC Input Resistance : 20K Ohm Programmable ON & OFF timing.
13	Supply and Installation/Fixing/ Provision of Outdoor type Thermoplastic modular panel enclosure with transparent polycarbonate lid, shock proof, IP 65 (Weather Proof) rust proof, water proof, corrosion proof having internally embedded gasket on both lid and flap suitable to fix. Single phase/three phase energy meter in suitable base plate and having a provision for Fuse/MCB cutout with suitable transparent hinged flap opening for operating MCB along with complete tamper proof SEALING facility. 300x300x214mm
14	Supplying and fixing angle iron frame work fabricated out of M.S angle iron... and M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint.
15	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' type curve, indicator ON/OFF, energy cross-3 with short circuit breaking capacity of 10K and Complete wiring as required. 5-32 Amps SP
16	Supply and Installation/Fixing/Provision for mounting of HRC Fuse /MCB with suitable connector/teminal for 3 Ph/1 Ph connections with Loop-in & Loop-Out terminals for 10 Sqmm/25 sqmm 3.5 C Al/AR/Cu/AR Cable and branchout 2.5 Sqmm 2 Core Al/Cu PVC insulated cable, enclosure, which should be shock proof, safe IP 65 (Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP 65 Thermoplastic, Polyamide glands and /or grommets.
17	Supplying and fixing hylum brand hand plastic sheet 3mm thick with necessary nitches for fixing switches, regulators etc., and fixing on existing wood or metal box using N.F.screws.
18	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes 25 sqmm long barrel
19	Supplying of 1.1 KV LT UG cable having aluminium conductor PVC insulated, extruded inner sheathed, galvanized, steel strip confirming to IS-3975:1990 (No of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1998 & confirming GTP of GROUP-A. 3.5 core 25 sqmm
20	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stoneware pipe/ on wall/ on pole as required.II. On wall /Structure 25 sqmm to 75 sqmm
	Total Rs

Certificate: Certify that the work has been carried out satisfactorily

K.N. Baddi

Assistant Executive Engineer (Ele)
BBMP, Bangalore

Nos			10	15730	157300.00	10	157300.00		
Nos			10	2853	28530.00	10	28530.00		
Nos			10	153	1530.00	10	1530.00		
Nos			20	352	7040.00	20	7040.00		
Nos			10	1758	17580.00	10	17580.00		
Sqcms			4000	0.09	360.00	4000	360.00		
Nos			60	12	720.00	60	720.00		
Mtrs			69	155	10695.00	69	10695.00		
Mtrs			69	25	1725.00	69	1725.00		
					1214405.00		**1214405.00**		